

BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, DC 20554

\_\_\_\_\_  
In the Matter of )

)  
Third Periodic Review of the Commission's )  
Rules and Policies Affecting the Conversion )  
to Digital Television )  
\_\_\_\_\_)

MB Docket No. 07-91

To: The Commission

**Comments of Long Communications, LLC**

Long Communications, LLC ("Long") hereby files comments in response to the Notice of Proposed Rulemaking in the *Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television* Commission's ("Third DTV Periodic Review NPRM") issued on May 18, 2007 in which the Commission requested comment on the procedures and rule changes necessary to complete the nation's transition from analog to digital television ("DTV").<sup>1</sup>

*Background*

Long is licensee of WHKY-TV, Hickory, North Carolina. Long operates WHKY on analog channel 14 and has built and is currently operating digital facilities on channel 40 (BLCDT-20060630ABW). In the final DTV Table of Allotments released August 6, 2007, WHKY-DT's allotment on channel 40 receives interference to 19.1% of its coverage area, ranking it in the top 1.1% of all digital allotments for amount of interference received.<sup>2</sup> Based

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<sup>1</sup> *Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, MB Docket No. 07-91, Notice of Proposed Rulemaking, FCC 07-70 (rel. May 18, 2007) ("Third DTV Periodic Review NPRM").

<sup>2</sup> *In re: Advanced Television Systems and their Impact on the Existing Television Broadcast Service*, MB Docket No.

upon engineering calculations, the interference to WHKY-DT is most pronounced to the south east, the most populated region of WHKY-DT's coverage area. A total of nearly 184,000 people will be affected by this interference, but solutions exist now that would limit that total to approximately 43,000, which translates to saving roughly 141,000 people from losing access to WHKY-DT on February 17, 2009.

**I. Expansion/maximization applications should be allowed as an exception to the freeze for channels in the top 2% of allotted digital channels ranked by amount of interference received.**

The Commission recently reiterated that the moratorium on expansion DTV applications was designed to ensure “that all stations can at least provide digital service to their analog viewers by the transition date” before the FCC begins to consider modification and expansion applications.<sup>3</sup> But applying that moratorium to WHKY-DT and other stations receiving large amounts of interference only frustrates the overriding objective for the digital transition – “to permit broadcasters to reach with digital service the audiences they have been serving with analog service so that viewers will continue to have access to the stations that they are accustomed to receiving over the air.”<sup>4</sup>

In the *Third DTV Periodic Review NPRM*, the Commission recognized that there might be some circumstances where exceptions should be made to the current policy of not permitting expansion/maximization applications until a later date, and sought comment on that issue. Long respectfully submits that such an exception should be made to permit, but not require, those channels in the top 2% of those receiving interference in the new DTV Table of Allotments to

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87-268, 7<sup>th</sup> Report and Order, FCC 07-138 (released August 6, 2007), Appendix B, (7<sup>th</sup> DTV Report & Order).

<sup>3</sup> 7<sup>th</sup> DTV Report and Order, ¶91.

<sup>4</sup> *Id.* at ¶67.

file expansion/maximization applications now to resolve or significantly reduce that interference before the transition deadline.<sup>5</sup>

Long's proposal is narrow, and therefore does not present risks of overburdening Commission or industry resources or otherwise delaying the digital transition. First, even if every channel in the top 2% of those receiving interference filed such applications, that would only be approximately 36 stations, avoiding any risk of overtaxing the FCC staff. Second, filing such applications would be voluntary, which would further reduce the number of filings. Third, the opportunity to file could be conditioned upon such applications causing no more than a set but minimal level of increased interference to other stations as part of the balancing necessary to ensure the public's access to television is protected. Finally, these applications should be limited in scope to resolving or reducing predicted interference within stations' current analog service areas, as opposed to opening the door for obtaining new/broader digital coverage areas. Thus, the facility expansion allowed would be limited to only what is reasonably necessary to remove or reduce predicted interference.

In WHKY-DT's situation, obtaining an expansion permit now would have significant benefits. As the attached engineering statement sets forth, an expansion application for WHKY-DT would reduce the amount of received interference from 19.1% to only 4.5%. As a result, the total number of people receiving interference would be slashed from just over 184,000 to only 43,327, a difference of approximately 141,000. This significant reduction is possible with only minor changes to WHKY-DT's antenna pattern and power. Moreover, the changes would not increase interference to any other station, with one exception, and there the increase is only

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<sup>5</sup> A DTV freeze waiver would automatically be granted for this select group of channels if necessary, provided they meet any filing criteria set forth by the Commission in adopting this exception.

.04%, a very small tradeoff for the significant reduction in the number of viewers that would otherwise lose WHKY-DT reception.

WHKY-DT has the resources available to file the proposed application, order and purchase the necessary equipment, and construct the modified facilities by the transition deadline, and could certify this to the Commission in its expansion application.

**II. The proposed narrow exception comports with the Commission's revised public interest focus.**

In the Third DTV Periodic Review NPRM, the Commission announced that Congress' hard deadline for termination of analog television service required a completely different balancing of the public interest to ensure post-transition access to digital television as opposed to ensuring pre-transition analog and digital service.<sup>6</sup> Long concurs with and supports the Commission's conclusion to focus on post-transition access. Applying that new public interest focus, the Commission can and should fully implement the proposed narrow exception to the expansion application moratorium, and grant limited waivers of the DTV freeze in association with that policy. The resulting ability to reduce interference will help speed bolster, not delay, the transition.

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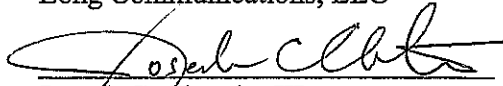
<sup>6</sup> Third DTV Periodic Review NPRM, ¶54.

**III. Conclusion.**

Long respectfully requests that the Commission consider and adopt these suggestions to ensure that the public can continue to receive television service after February 17, 2009.

Respectfully submitted:

Long Communications, LLC

A handwritten signature in dark ink, appearing to read "Joseph C. Chautin, III", written over a horizontal line.

Joseph C. Chautin, III

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*Counsel for Long Communications, LLC*

Dated: August 15, 2007

ENGINEERING STATEMENT  
IN SUPPORT OF COMMENTS OF  
OF LONG COMMUNICATIONS, LLC.  
IN MB DOCKET NO. 07-91

This Engineering Statement was prepared on behalf of Long Communications, LLC. (“Long”), licensee of WHKY-TV/DT, Hickory, North Carolina, in support of Comments on the *Notice of Proposed Rule Making* in the matter of the Third Periodic Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television, MB Docket No. 07-91 (“*NPRM*”).

The purpose of this statement is to address the FCC proposal to require proposed post-transition digital allotment facilities to limit their facilities so that there is no extension of the Appendix B allotment footprint. See Paragraph 93 of the *NPRM*. Furthermore, Long requests a waiver of the FCC Rules to the extent necessary that will help mitigate the 19.1% predicted interference to which the WHKY-DT allotment is subjected.

The WHKY-DT allotment facility is listed in Appendix B of the FCC’s recently released Seventh Report and Order and Eighth Further Notice of Proposed Rule Making (FCC 07-137, Released on August 6, 2007) as subject to predicted interference of 19.1%. This level of interference places the WHKY-DT allotment facility within the top 1.1% of digital allotments subject to interference of 19.1% or greater (20 out of 1823 allotments). A solution has been developed that will help to mitigate the interference to the WHKY-DT allotment.

The WHKY-DT allotment facility is for a maximum ERP of 600 kW on Channel 40 near Hickory. A summary sheet of the parameters of the WHKY-DT allotment is included herein at Figure 1. Due to the interference protection requirements prevailing on the WHKY-DT facility on Channel 40 during the pre-transitional period, it

was required to employ a directional antenna that is oriented to the northwest as indicated in Figure 1.

WHKY-TV is licensed for analog operation on Channel 14 with a “peanut” directional antenna oriented with major lobes approximately northwest and southeast with a maximum effective radiated power (ERP) of 2000 kW. The antenna radiation center is located at a height of 497 m AMSL and 182 m HAAT. Figure 2 is a summary sheet of the parameters of the WHKY-TV facility based on the FCC’s engineering database.

Long proposes that the WHKY-DT facility be permitted to operate with the same directional antenna shape as now authorized for its analog facility and to employ a maximum ERP of 1000 kW. The specifications of the proposed facility are summarized at Figure 3 herein. The purpose of this is to build a post-transition DTV facility that will more closely replicate its present analog service area and the area to which its viewers are now accustomed. Furthermore, it has been determined that such a proposal will significantly mitigate the predicted interference that would now exist within its present allotment footprint from 19.1% to 4.5%. This occurs by essentially shifting the predicted interference further away from the WHKY-DT coverage footprint and at least providing the WHKY-DT allotment footprint with a reasonably interference-free service.

An interference analysis on the proposed WHKY-DT facility and it was determined that the proposal will meet the proposed FCC 0.5% criteria with respect to all stations except WMYT-DT, Rock Hill, SC (Channel 39). Because the WMYT-DT and WHKY-DT allotment facilities are both located within each other station’s respective service footprint, there is little improvement that can be made to either facility unless the FCC provides additional flexibility to permit this approach.

The predicted interference to the WMYT-DT allotment facility from the WHKY-DT allotment facility is currently 0.75%. However, the predicted interference to the WMYT-DT allotment facility from the WHKY-DT proposed 1000-kW directional

facility is 0.79%. Therefore, the proposal would result in only 0.04% additional interference caused to the WMYT-DT facility.

The predicted interference to the WHKY-DT allotment facility is shown on a map included herein at Figure 4. The source of the interference is from the WMYT-DT facility and another allotment facility for WLFB-DT in Bluefield, WV (Channel 40), with most of the interference coming from the WMYT-DT facility. As indicated in Figure 4, the predicted interference of 183,922 represents 19.1% of the WHKY-DT noise-limited terrain-limited service baseline.

Figure 5 is a map showing the predicted service contour and interference to the proposed WHKY-DT 1000-kW peanut directional facility. As indicated there is significant unavoidable predicted interference from the WMYT-DT allotment facility. However, the predicted interference has been shifted further away from the present WHKY-DT allotment footprint. The net interference that occurs within the WHKY-DT allotment footprint assuming the 1000-kW peanut directional proposal is only 43,327 or 4.5% of the original WHKY-DT allotment. Therefore, the proposed 1000 kW peanut directional facility will allow WHKY-DT to recover much of the service area within its present allotment footprint that is now lost to interference from WMYT-DT. The expense of this proposal is only 0.04% additional interference to WMYT-DT and permitted expansion of its theoretical Appendix B footprint.



Louis Robert du Treil, Jr., P.E.

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Ave.  
Sarasota, Florida 34237

August 13, 2007





# TV Inquiry

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida

**Summary:**      **Callsign:** WHKY-TV    **Channel:** 40    **Offset:**    **Service:** DT    **Status:** CP MOD    **Zone:** 2

**Record Type:** C    **City:** HICKORY    **State:** NC    **Facility ID:** 65919

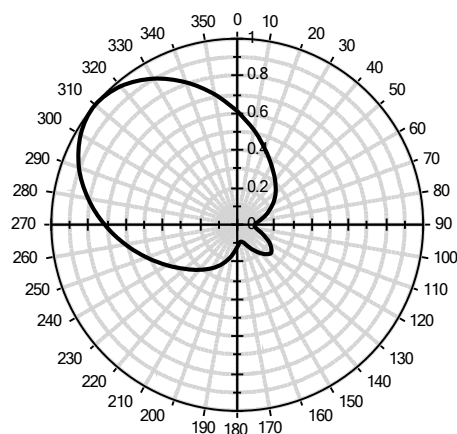
**Application File No.:** BMPC - 20040716AAE    **Application ID:** 1001355

**Latitude (NAD 27):** 35-43-59.0 N    **Latitude (NAD 83):** 035-43-59.48 N    **ERP:** 600 kW

**Longitude (NAD 27):** 081-19-51.0 W    **Longitude (NAD 83):** 081-19-50.31 W    **RCAMSL:** 497 meters

**Antenna Pattern:**      **Antenna Type:** D    **Antenna ID:** 67111    **Antenna Rotation:** 0 deg

|           |            |            |            |
|-----------|------------|------------|------------|
| 0° 0.611  | 90° 0.094  | 180° 0.120 | 270° 0.713 |
| 10° 0.517 | 100° 0.104 | 190° 0.168 | 280° 0.815 |
| 20° 0.435 | 110° 0.147 | 200° 0.221 | 290° 0.906 |
| 30° 0.368 | 120° 0.202 | 210° 0.269 | 300° 0.972 |
| 40° 0.316 | 130° 0.236 | 220° 0.316 | 310° 1.000 |
| 50° 0.269 | 140° 0.202 | 230° 0.368 | 320° 0.972 |
| 60° 0.221 | 150° 0.147 | 240° 0.435 | 330° 0.906 |
| 70° 0.168 | 160° 0.104 | 250° 0.517 | 340° 0.815 |
| 80° 0.120 | 170° 0.094 | 260° 0.611 | 350° 0.713 |



**Antenna Model:** CDB

**Note:** Rotation or tilt is not applied to the pattern shown



# TV Inquiry

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida

**Summary:**      **Callsign:** WHKY-TV    **Channel:** 14    **Offset:** -    **Service:** TV    **Status:** LIC    **Zone:** 2  
**Record Type:** C    **City:** HICKORY    **State:** NC    **Country:** US    **Border Code:**  
**Facility ID:** 65919    **Party Name:** LONG COMMUNICATIONS, LLC.  
**Application File No.:** BLCT    - 20041103AGR    **Application ID:** 1020019    **Last Change Date:** 8/24/2006

**Technical Details:**      **HAAT:** 182 meters    **Polarization:** H  
**Latitude (NAD 27):** 35-43-59 N    **Maximum HAAT:** 223 meters  
**Longitude (NAD 27):** 081-19-51 W    **Height AGL:** 140.7 meters    **Electrical Tilt:** 0.75 deg  
**Latitude (NAD 83):** 035-43-59.48 N    **Overall Height AGL:** 147.9 meters    **Mechanical Tilt:** deg  
**Longitude (NAD 83):** 081-19-50.31 W    **ERP:** 2000 kW    **Mechanical Tilt Azimuth:** deg  
**RCAMSL:** 497 meters    **Maximum ERP:** kW    **Degrees True:** deg  
**Site Elevation AMSL:** meters    **Maximum ERP at any Angle:** kW    **Antenna Make:** AND  
**Antenna Model:** ATW16H3-HSP5-14

**Antenna Pattern:**      **Antenna Type:** D    **Antenna ID:** 67110    **Antenna Rotation:** 0 deg

|     |       |      |       |      |       |      |       |
|-----|-------|------|-------|------|-------|------|-------|
| 0°  | 0.213 | 90°  | 0.663 | 180° | 0.213 | 270° | 0.663 |
| 10° | 0.251 | 100° | 0.838 | 190° | 0.251 | 280° | 0.838 |
| 20° | 0.309 | 110° | 0.957 | 200° | 0.309 | 290° | 0.957 |
| 30° | 0.333 | 120° | 1.000 | 210° | 0.333 | 300° | 1.000 |
| 40° | 0.309 | 130° | 0.957 | 220° | 0.309 | 310° | 0.957 |
| 50° | 0.251 | 140° | 0.838 | 230° | 0.251 | 320° | 0.838 |
| 60° | 0.213 | 150° | 0.663 | 240° | 0.213 | 330° | 0.663 |
| 70° | 0.294 | 160° | 0.467 | 250° | 0.294 | 340° | 0.467 |
| 80° | 0.467 | 170° | 0.294 | 260° | 0.467 | 350° | 0.294 |

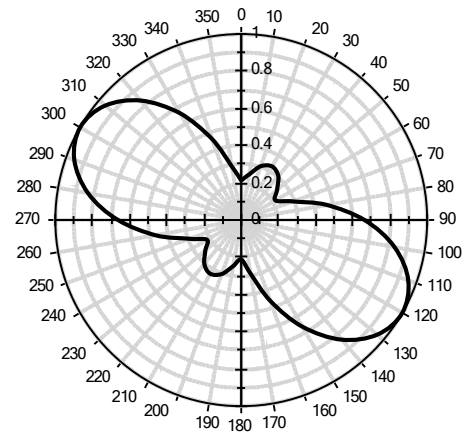
**Standard Pattern:**

**Antenna Make:** AND

**Antenna Model:** ATW16H3-HSP5-14

**Last Change Date:**

**Note:** Rotation or tilt is not applied to the pattern shown



|   |                                      |  |
|---|--------------------------------------|--|
| <b>Structure:</b> ASRN: 1019297                           | <b>FAA Study No.:</b> 97-ASO-0298-OE | <b>Structure Height:</b> 135.9 meters    |
| <b>Type:</b> TOWER  | <b>Date Received:</b> 04/21/1997     | <b>Structure Height:</b> 445.9 feet      |
| <b>Latitude (NAD 27):</b> 035-43-58.52 N                  | <b>Date Entered:</b> 04/22/1997      | <b>Ground Elevation:</b> 356.3 meters    |
| <b>Longitude (NAD 27):</b> 081-19-50.69 W                 | <b>Date Issued:</b> 05/12/1997       | <b>Ground Elevation:</b> 1169.0 feet     |
| <b>Latitude (NAD 83):</b> 35-43-59.0 N                    | <b>Date Constructed:</b> 01/01/1967  | <b>Overall Height AGL:</b> 147.9 meters  |
| <b>Longitude (NAD 83):</b> 081-19-50.0 W                  | <b>Date Dismantled:</b>              | <b>Overall Height AGL:</b> 485.2 feet    |
| <b>Struct. Address:</b> 526 MAIN AVE SE                   |                                      | <b>Overall Height AMSL:</b> 504.2 meters |
| <b>Struct. City:</b> HICKORY                              | <b>Struct. State:</b> NC             | <b>Overall Height AMSL:</b> 1654.2 feet  |
| <b>Entity Name:</b> LONG FAMILY PARTNERSHIP DBA = WHKY TV |                                      |  |

Figure 3

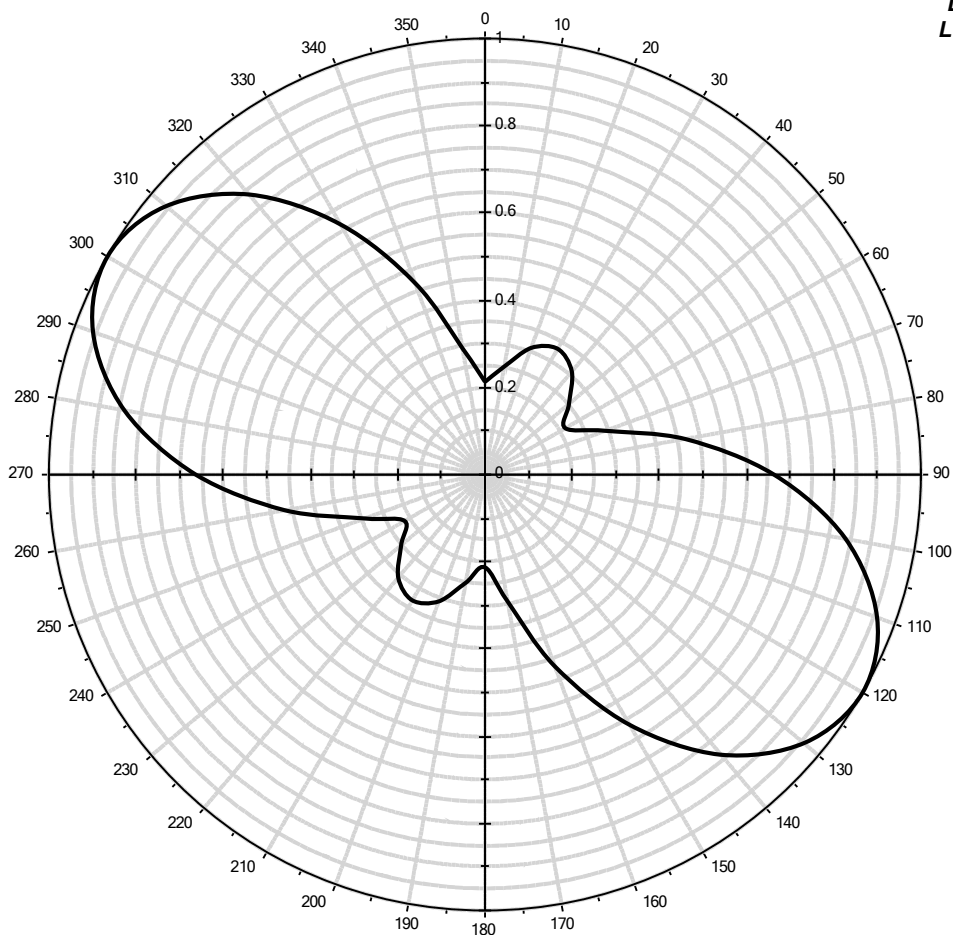
# DA Inquiry

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida



**Antenna Pattern:**      **Antenna ID:**    67110

**PROPOSED WHKY-DT**  
**CHANNEL 40**  
**MAX. ERP = 1000 KW**  
**R/C AMSL = 494 M**  
**HAAT = 182 M**  
**LAT = 35-43-59 N.L.**  
**LON = 81-19-51 W.L.**



**Note:** display reflects rotation of 0.00°

## Antenna Details:

|     |       |      |       |      |       |      |       |      |       |      |       |
|-----|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| 0°  | 0.213 | 60°  | 0.213 | 120° | 1.000 | 180° | 0.213 | 240° | 0.213 | 300° | 1.000 |
| 10° | 0.251 | 70°  | 0.294 | 130° | 0.957 | 190° | 0.251 | 250° | 0.294 | 310° | 0.957 |
| 20° | 0.309 | 80°  | 0.467 | 140° | 0.838 | 200° | 0.309 | 260° | 0.467 | 320° | 0.838 |
| 30° | 0.333 | 90°  | 0.663 | 150° | 0.663 | 210° | 0.333 | 270° | 0.663 | 330° | 0.663 |
| 40° | 0.309 | 100° | 0.838 | 160° | 0.467 | 220° | 0.309 | 280° | 0.838 | 340° | 0.467 |
| 50° | 0.251 | 110° | 0.957 | 170° | 0.294 | 230° | 0.251 | 290° | 0.957 | 350° | 0.294 |

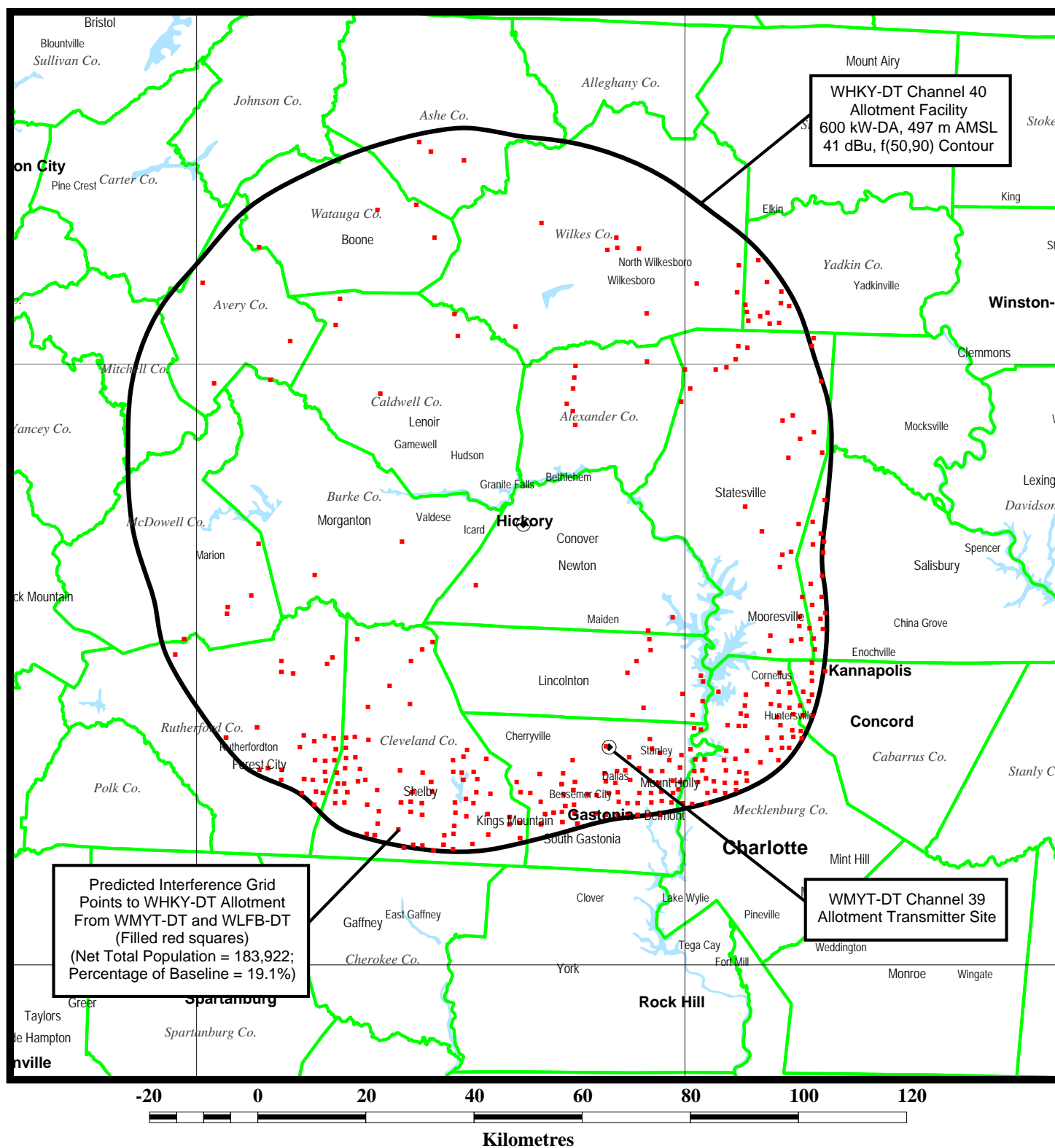
**Antenna Make:**    AND

**Standard Pattern:**

**Antenna Model:**    ATW16H3-HSP5-14

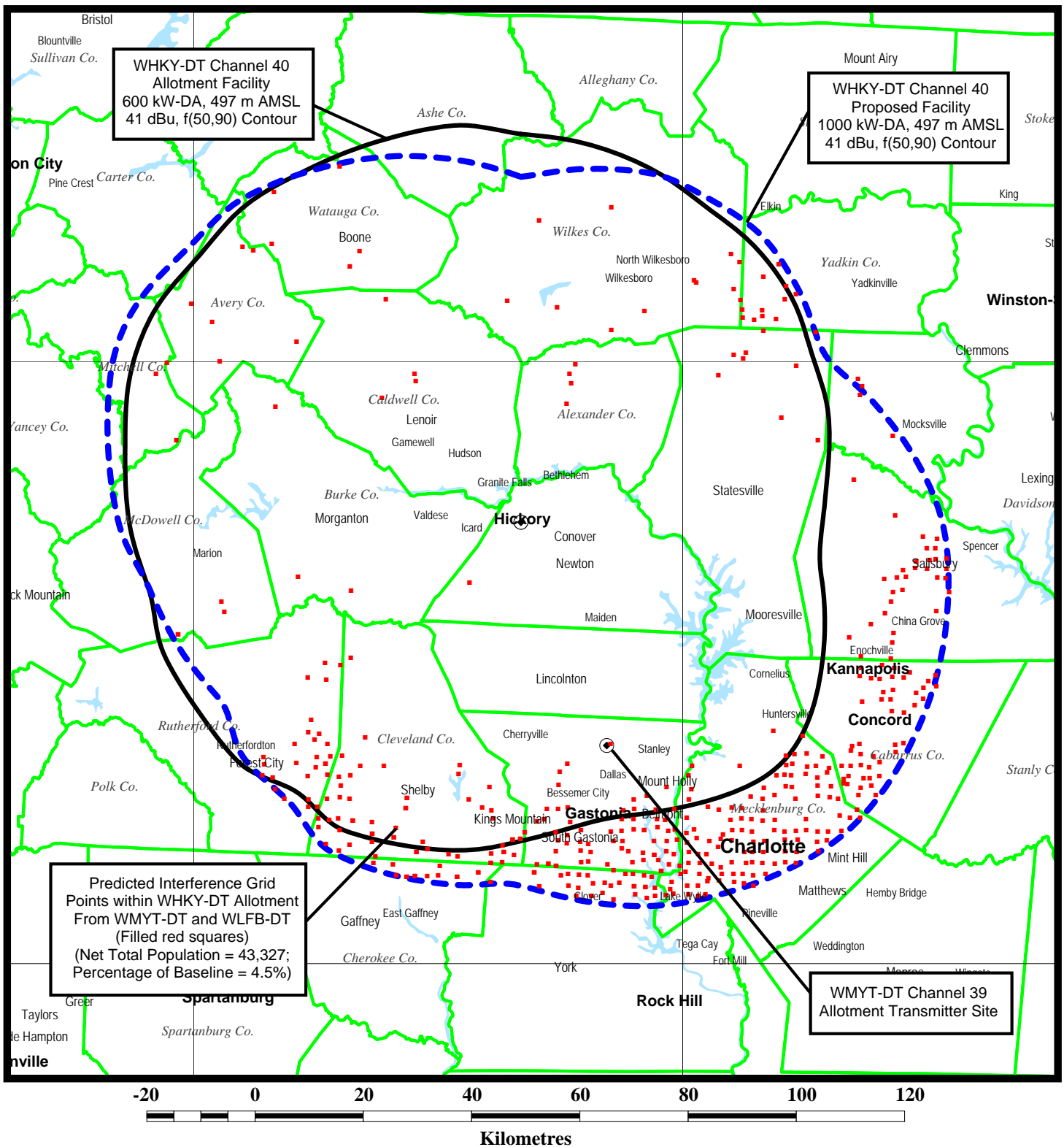
**Last Change Date:**

Figure 4



## PREDICTED SERVICE AND INTERFERENCE TO WHKY-DT ALLOTMENT FACILITY

duTreil, Lundin & Rackley, Inc. Sarasota, Florida



## PREDICTED SERVICE AND INTERFERENCE TO WHKY-DT ALLOTMENT FACILITY ASSUMING PROPOSED 1000 KW DIRECTIONAL ANTENNA FACILITY FOR WHKY-DT